

Engineering Development Model

Power Splitter/Combiner

ZX10-ED14768

2 Way-0°

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



CASE STYLE : KB1450

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C				
Parameter		Min.	Typ.	Max. Units
Frequency		1100		3800 MHz
Isolation	1100-3800 MHz	-	20	- dB
Insertion Loss Above 3.0 dB	1100-3800 MHz	-	0.40	- dB
Phase Unbalance	1100-3800 MHz	-	2.00	- Deg.
Amplitude Unbalance	1100-3800 MHz	-	0.10	- dB
VSWR	SUM PORT	-	1.32	- (:1)
	OUTPUT PORTS	-	1.20	- (:1)

MAXIMUM RATINGS	
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C
Power Input (as a splitter)	10W
Internal Dissipation	0.75W
DC Current (each port)	1A

electrical schematic



COAXIAL CONNECTIONS	
SUM PORT	S
PORT 1	1
PORT 2	2



ISO 9001 ISO 14001 AS 9100 CERTIFIED

P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 • Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site
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Typical Performance Data

FREQUENCY (MHz)	TOTAL LOSS ¹ (dB)		AMPLITUDE UNBALANCE (dB)	ISOLATION (dB)	PHASE UNBALANCE (deg.)	FREQUENCY (MHz)	VSWR (:1)		
	S-1	S-2					S	1	2
1100	3.30	3.33	0.03	20.12	0.36	1100.0	1.40	1.14	1.15
1200	3.27	3.30	0.03	22.52	0.39	1200.0	1.33	1.13	1.14
1300	3.25	3.28	0.03	24.67	0.38	1300.0	1.25	1.13	1.13
1400	3.24	3.26	0.02	25.71	0.38	1400.0	1.19	1.11	1.11
1500	3.23	3.25	0.02	25.52	0.41	1500.0	1.13	1.09	1.09
1600	3.23	3.25	0.01	24.73	0.44	1600.0	1.09	1.06	1.06
1700	3.24	3.25	0.01	24.03	0.43	1700.0	1.08	1.04	1.04
1800	3.25	3.26	0.01	23.69	0.46	1800.0	1.10	1.04	1.04
1900	3.27	3.27	0.00	23.75	0.49	1900.0	1.12	1.05	1.05
2000	3.29	3.28	0.01	24.28	0.53	2000.0	1.14	1.07	1.07
2100	3.30	3.29	0.01	25.38	0.54	2100.0	1.16	1.09	1.08
2200	3.31	3.31	0.01	27.08	0.56	2200.0	1.16	1.11	1.08
2300	3.33	3.32	0.01	29.72	0.62	2300.0	1.16	1.12	1.08
2400	3.34	3.34	0.00	33.76	0.66	2400.0	1.14	1.12	1.08
2500	3.34	3.35	0.01	39.17	0.70	2500.0	1.10	1.10	1.07
2600	3.34	3.36	0.02	36.64	0.72	2600.0	1.08	1.10	1.05
2700	3.35	3.37	0.02	31.96	0.73	2700.0	1.04	1.09	1.04
2800	3.36	3.39	0.03	29.04	0.70	2800.0	1.02	1.07	1.04
2900	3.37	3.40	0.03	27.20	0.66	2900.0	1.04	1.07	1.05
3000	3.38	3.40	0.02	26.13	0.60	3000.0	1.08	1.10	1.08
3100	3.40	3.41	0.01	25.65	0.62	3100.0	1.11	1.12	1.11
3200	3.42	3.42	0.00	25.72	0.57	3200.0	1.14	1.14	1.14
3300	3.44	3.44	0.00	26.25	0.56	3300.0	1.16	1.16	1.16
3400	3.44	3.44	0.00	26.93	0.69	3400.0	1.15	1.19	1.17
3500	3.43	3.44	0.01	26.93	0.81	3500.0	1.13	1.19	1.18
3600	3.42	3.45	0.03	25.62	0.88	3600.0	1.09	1.18	1.17
3700	3.41	3.47	0.06	23.36	0.98	3700.0	1.05	1.17	1.16
3800	3.41	3.48	0.07	21.03	1.06	3800.0	1.07	1.15	1.14

¹Total Loss = Insertion Loss + 3dB Splitter Loss

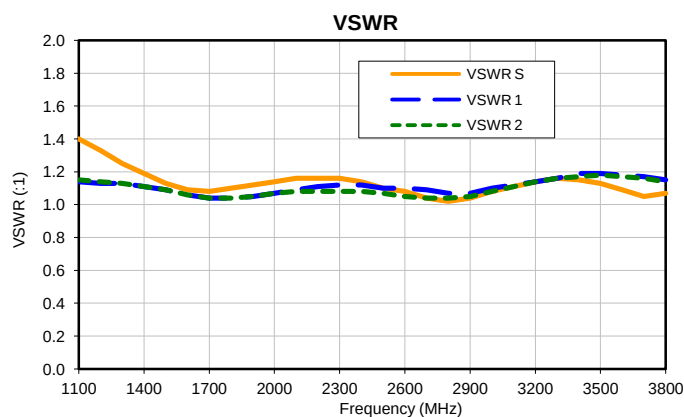
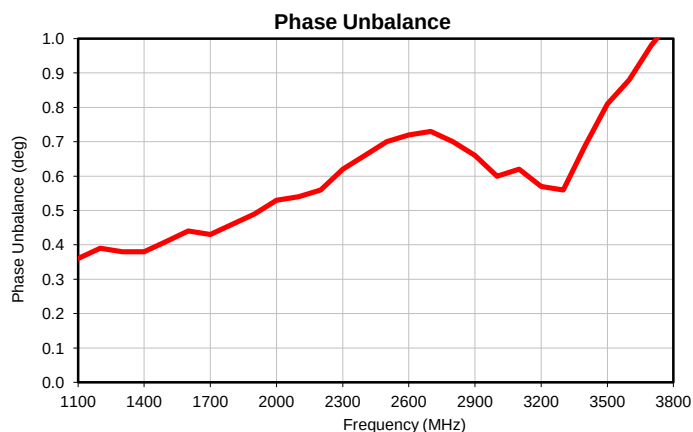
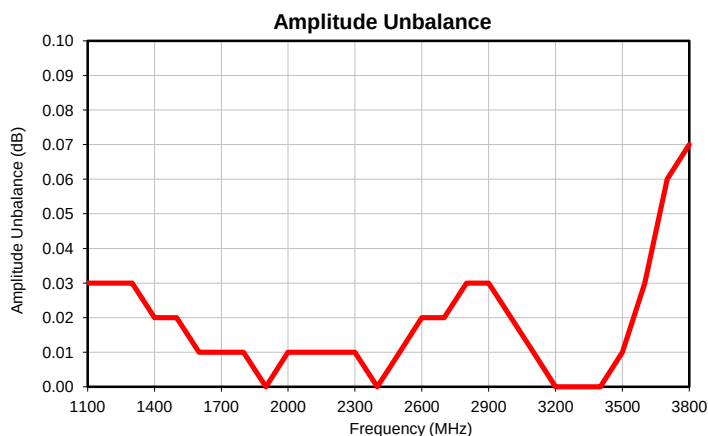
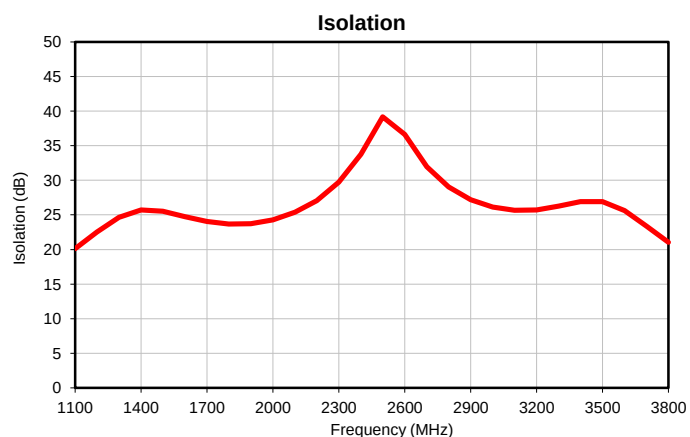
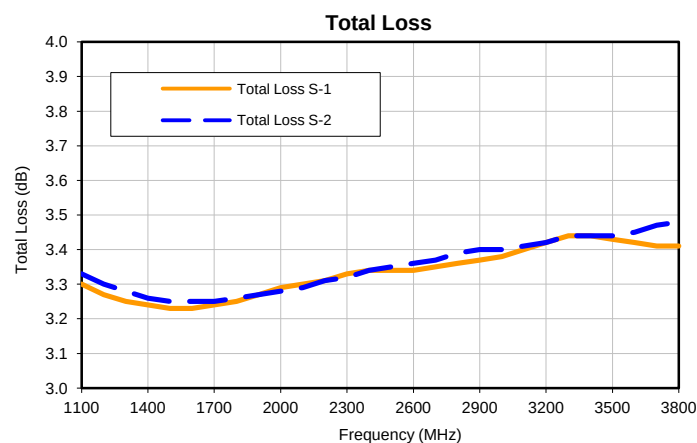


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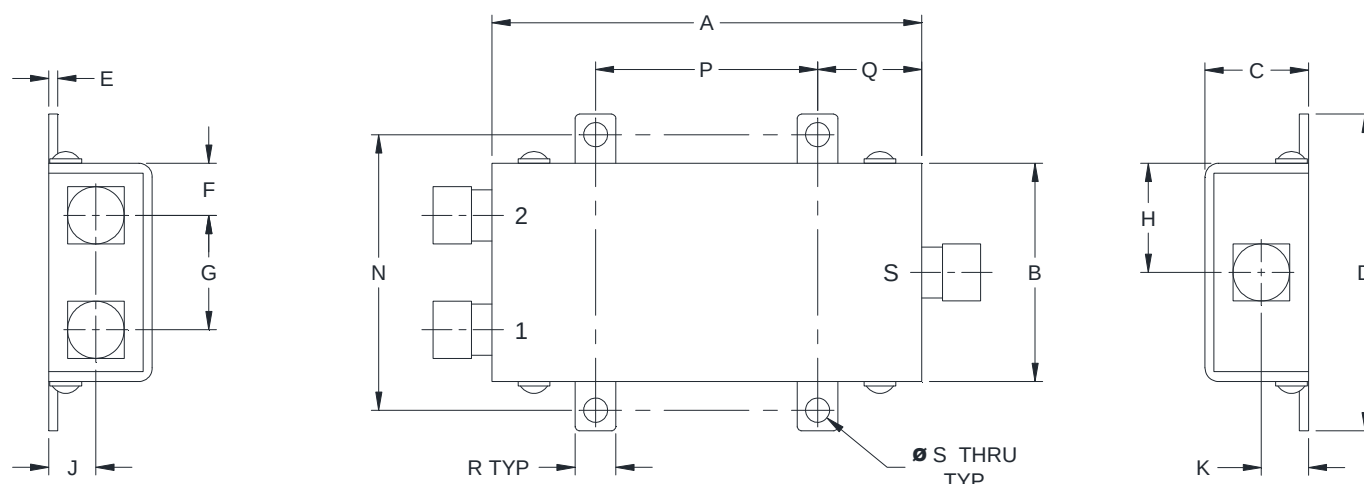
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Typical Performance Curves



Outline Dimensions



CASE#	A	B	C	D	E	F	G	H	J	K	L	M	N
KB1450	1.90 (48.26)	.96 (24.38)	.46 (11.68)	1.39 (35.31)	.04 (1.02)	.23 (5.84)	.50 (12.70)	.48 (12.19)	.21 (5.33)	.21 (5.33)	- -	- -	1.205 (30.61)

CASE#	P	Q	R	S	WT, GRAM
KB1450	.980 (24.89)	.46 (11.68)	.18 (4.57)	.106 (2.69)	50

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$
Tolerance on hole size and interaxes dimensions to be $\pm .005$

Notes:

- Case material: Brass.
- Case finish: Nickel plate.



INTERNET <http://www.minicircuits.com>

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Mini-Circuits ISO 9001 & ISO 14001 Certified



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100°C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D
Humidity	90% RH, 65°C Units may require bake-out after humidity to restore full performance.	MIL-STD-202, Method 103
Thermal Shock	-65° to 125°C, 5 cycles	MIL-STD-202, Method 107, Condition B
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	100g, 6ms sawtooth, 3 shocks each direction 3 axes (total 18)	MIL-STD-202, Method 213, Condition I